

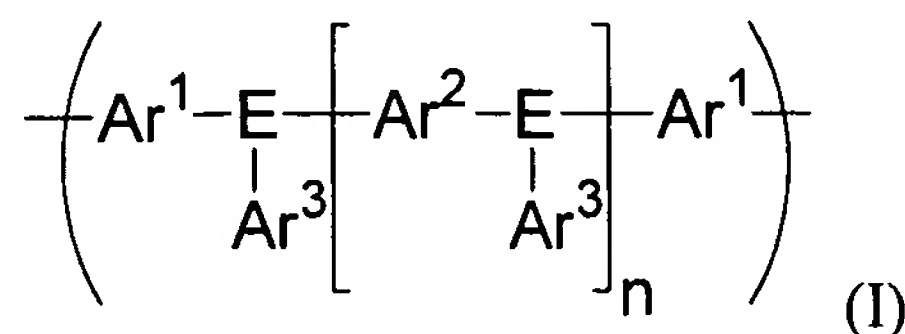
Amendments to the Claims

Please amend Claims 24, 31, 36 and 47. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1-23. (Cancelled)

24. (Currently Amended) An oligomer or polymer comprising a first repeat unit and a second repeat unit that may be the same or different from the first repeat unit, the first repeat unit having formula (I):



wherein

each E independently represents ~~optionally substituted~~ a nitrogen or optionally substituted a phosphorus atom, with the proviso that at least one E is ~~optionally substituted~~ a phosphorus atom;

each Ar¹, Ar² and Ar³ is the same or different and independently represents an optionally substituted aryl or heteroaryl;

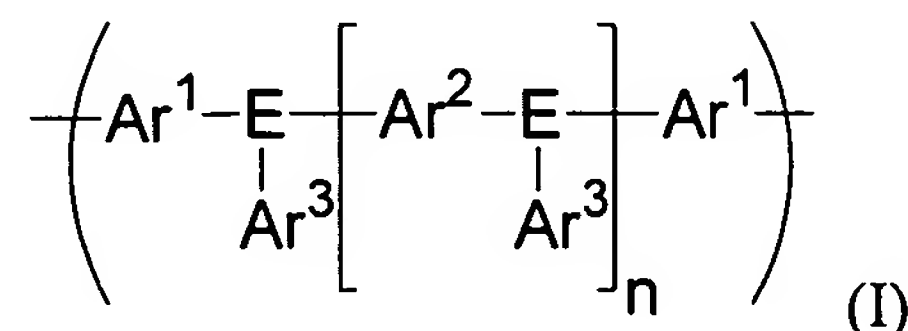
each E is further optionally substituted with at least one additional substituent;

n is an integer from 0 to 3; and

if with the further proviso that when E is an unsubstituted atom ~~nitrogen or unsubstituted phosphorus~~, then the second repeat unit is directly conjugated to the first repeat unit.

25. (Previously Presented) An oligomer or polymer according to claim 24 wherein each Ar¹, Ar² and Ar³ is an optionally substituted phenyl.

26. (Previously Presented) An oligomer or polymer according to claim 24, wherein at least one Ar³ is substituted by a substituent selected from the group consisting of optionally substituted, branched, cyclic or linear C₁₋₂₀ alkyl or C₁₋₂₀ alkoxy; C₁₋₂₀ fluoroalkyl, fluorine, optionally substituted diarylamine and optionally substituted diarylphosphine.
27. (Previously Presented) An oligomer or polymer according to claim 24, wherein E is selected from the group consisting of nitrogen, unsubstituted phosphorus and phosphorus oxide.
28. (Previously Presented) An oligomer or polymer according to claim 24, wherein the second repeat unit is different from the first repeat unit.
29. (Previously Presented) An oligomer or polymer according to claim 24, wherein said oligomer or polymer comprises three or more different repeat units.
30. (Previously Presented) An oligomer or polymer according to claim 29, wherein the second repeat unit and optionally further repeat units are selected from optionally substituted phenyl, fluorene, spirobifluorene, indenofluorene, heteroaryl, dihydrophenanthrene and / or triarylamine.
31. (Withdrawn-Currently Amended) A method of forming an oligomer or polymer comprising a first repeat unit and a second repeat unit that may be the same or different from the first repeat unit, the first repeat unit having formula (I):



wherein

each E independently represents ~~optionally substituted~~ a nitrogen or optionally substituted a phosphorus atom, with the proviso that at least one E is ~~optionally substituted~~ a phosphorus atom;

each Ar¹, Ar² and Ar³ is the same or different and independently represents an optionally substituted aryl or heteroaryl;

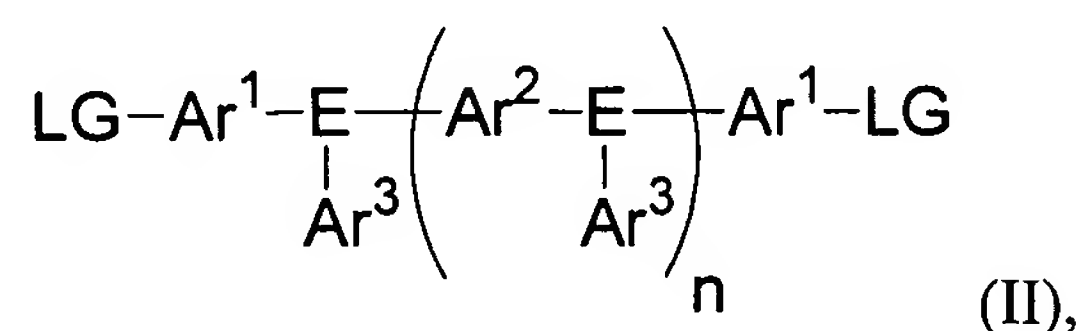
each E is further optionally substituted with at least one additional substituent;

n is an integer from 0 to 3; and

if with the further proviso that when E is an unsubstituted atom ~~nitrogen or unsubstituted phosphorus~~, then the second repeat unit is directly conjugated to the first repeat unit;

said method comprising:

the step of oligomerising or polymerising a monomer of formula (II) in the presence of a metal catalyst of variable oxidation state:



wherein each LG is the same or different and represents a leaving group capable of participating in a polycondensation mediated by a metal of variable oxidation state.

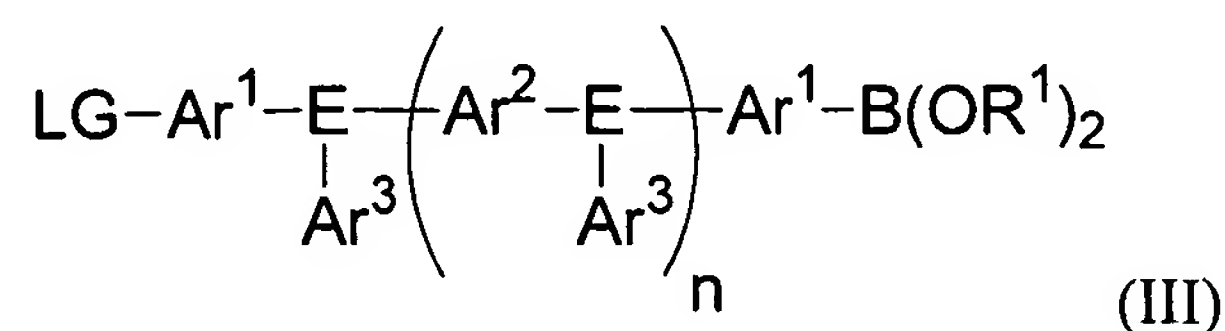
32. (Withdrawn) A method according to claim 31, wherein each LG is the same or different and is independently selected from halogen; a reactive boronic group selected from a boronic acid group, a boronic ester group and a borane group; or a moiety of formula -O-SO₂-Z, wherein Z is selected from the group consisting of optionally substituted alkyl and aryl.
33. (Withdrawn) A method according to claim 32, wherein each LG is independently a halogen or a moiety of formula -O-SO₂-Z, and the monomer of formula (II) is oligomerised or polymerised in the presence of a nickel complex catalyst.
34. (Withdrawn) A method according to claim 32, wherein the monomer of formula (II) is oligomerised or polymerised with a second aromatic monomer in the presence of a palladium complex catalyst and a base; and further wherein

each LG is the same or different and comprises a reactive boronic group and the second monomer comprises two reactive groups independently selected from halogen and a moiety of formula -O-SO₂-Z, or

each LG independently comprises a halogen or a moiety of formula -O-SO₂-Z and the second monomer comprises two reactive boron groups which are the same or different.

35. (Withdrawn) A method according to claim 32, wherein one LG is a reactive boron group; the other LG is a halogen or a moiety of formula -O-SO₂-Z; and the monomer of formula (II) is oligomerised or polymerised in the presence of a palladium complex catalyst and a base.

36. (Withdrawn-Currently Amended) A monomer comprising a repeat unit of formula (III):



wherein

each E independently represents ~~optionally substituted~~ a nitrogen or optionally substituted a phosphorus atom, with the proviso that at least one E is ~~optionally substituted~~ a phosphorus atom;

each Ar¹, Ar² and Ar³ is the same or different and independently represents an optionally substituted aryl or heteroaryl;

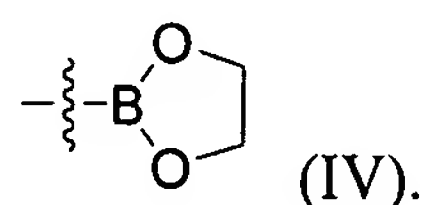
each E is further optionally substituted with at least one additional substituent;

n is an integer from 0 to 3;

each LG is the same or different and represents a leaving group capable of participating in a polycondensation mediated by a metal of variable oxidation state; and

each R¹ independently represents hydrogen or optionally substituted, branched, cyclic or linear C₁₋₂₀ alkyl, aryl or heteroaryl; and both groups R¹ associated with the same boron atom may be joined to form a ring.

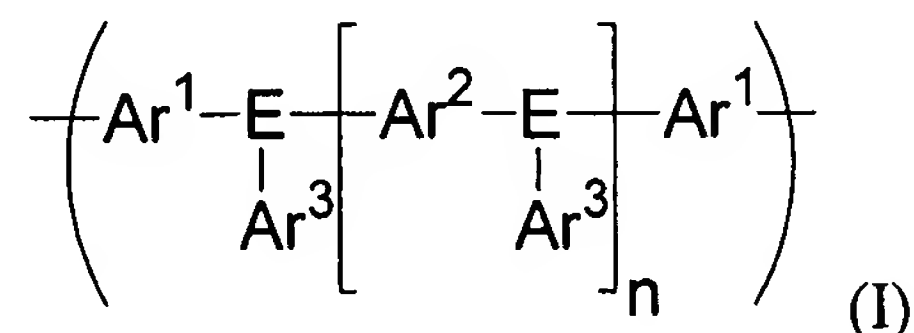
37. (Withdrawn) A monomer as defined in claim 36, wherein LG has a formula $-B(OR^1)_2$.
38. (Withdrawn) A monomer according to claim 36, wherein at least one R^1 represents a linear, branched or cyclic C_{1-20} alkyl.
39. (Withdrawn) A monomer according to claim 37, wherein the at least one group $-B(OR^1)_2$ represents an optionally substituted residue of formula (IV):



40. (Withdrawn) A monomer according to claim 39, wherein at least one carbon atom of the residue of formula (IV) is substituted.
41. (Previously Presented) An optical device comprising an oligomer or polymer according to claim 24.
42. (Previously Presented) An optical device according to claim 41, wherein the oligomer or polymer is located in a layer between a first electrode for injection of holes and a second electrode for injection of electrons.
43. (Previously Presented) An optical device according to claim 42, wherein the device is an electroluminescent device.
44. (Previously Presented) A switching device comprising an oligomer or polymer according to claim 24.
45. (Withdrawn) A field effect transistor, comprising:
an insulator having a first side and a second side;
a gate electrode located on the first side of the insulator;

an oligomer or polymer according to claim 24, located on the second side of the insulator;
and
a drain electrode and a source electrode located on the oligomer or polymer.

46. (Withdrawn) An integrated circuit comprising a field effect transistor according to claim 45.
47. (Currently Amended) An oligomer or polymer comprising a first repeat unit and a second repeat unit that is different from the first repeat unit, the first repeat unit having formula (I):



wherein

each E independently represents ~~optionally substituted~~ a nitrogen or optionally substituted a phosphorus atom, with the proviso that at least one E is ~~optionally substituted a phosphorus atom~~;

each Ar¹, Ar² and Ar³ is the same or different and independently represents an optionally substituted aryl or heteroaryl;

each E is further optionally substituted with at least one additional substituent;

n is an integer from 0 to 3; and

if with the further proviso that when E is an unsubstituted atom ~~nitrogen or unsubstituted phosphorus~~, then the second repeat unit is directly conjugated to the first repeat unit.